WHAT IS CLAIMED IS:

1. A process for preparing a moisture-curable, polyether urethane containing terminal cyclic urea/reactive silane groups which comprises reacting at an NCO:OH equivalent ratio of 1.5:1 to 2.5:1

a) a hydroxyl component containing

i) 20 to 100% by weight, based on the weight of component a), of a polyether containing two hydroxyl groups and one or more polyether segments, wherein the polyether segments have a number average molecular weight of at least 3000 and a degree of unsaturation of less than 0.04 milliequivalents/g, provided that the sum of the number average molecular weights of all of the polyether segments per molecule averages 6000 to 20,000, and

ii) 0 to 80% by weight, based on the weight of component a), of a polyether containing one hydroxyl group and one or more polyether segments having a number average molecular weight of 1000 to 15,000, with

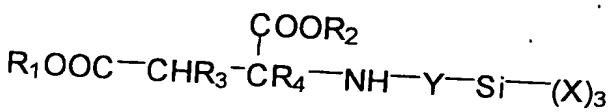
b) an isocyanate component containing

i) 20 to 100% by weight, based on the weight of component b), of a compound containing two isocyanate groups, and

ii) 0 to 80% by weight, based on the weight of component b), of a compound containing one isocyanate group,

provided that total percentages of a-ii) and b-ii) add up to at least 10, to form an isocyanate-containing reaction product and subsequently reacting this reaction product at an equivalent ratio of isocyanate groups to isocyanate-reactive groups of 0.8:1 to 1.1:1 with

c) a compound containing an isocyanate-reactive group and one reactive silane groups in which at least 10 mole % of component c) is a compound corresponding to the formula



(I)

wherein

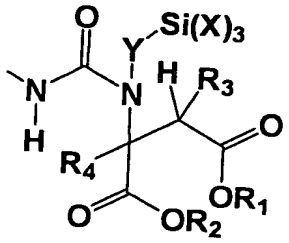
X represents identical or different organic groups which are inert to isocyanate groups below 100°C, provided that at least two of these groups are alkoxy or acyloxy groups,

Y represents a linear or branched alkylene group containing 1 to 8 carbon atoms,

$R_1$ and $R_2$ are identical or different and represent organic groups which are inert to isocyanate groups at a temperature of 100°C or less and

$R_3$ and $R_4$ are identical or different and represent hydrogen or organic groups which are inert towards isocyanate groups at a temperature of 100°C or less,

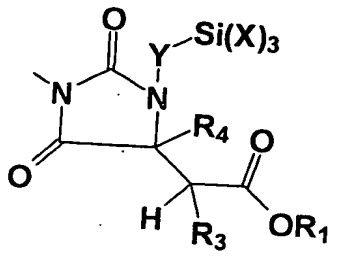
to form an intermediate polyether urethane containing at least a portion of terminal non-cyclic urea/reactive silane groups corresponding to formula II



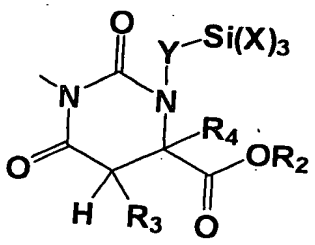
(II)

and converting the non-cyclic urea groups to cyclic urea groups by reacting the intermediate polyether urethane in the presence of an acid

catalyst and heat to form terminal cyclic urea/reactive silane groups corresponding to formula III and/or formula IV




Formula III




Formula IV

2. The process of Claim 1 wherein at least 50 mole % of component c) is a compound corresponding to formula I.

3. The process of Claim 1 wherein at least 80 mole % of component c) is a compound corresponding to formula I and

X represents identical or different alkoxy groups having 1 to 4 carbon atoms,

Y represents a linear radical containing 2 to 4 carbon atoms or a branched radical containing 5 to 6 carbon atoms and

$R_1$ and $R_2$ are identical or different and represent alkyl groups having 1 to 4 carbon atoms and

$R_3$ and $R_4$ represent hydrogen.

4. The process of Claim 1 wherein component a-i) is present in an amount of 20 to 90% by weight, based on the weight of component a); and component a-ii) is present in an amount of 10 to 80% by weight, based on the weight of component a).

5. The process of Claim 2 wherein component a-i) is present in an amount of 20 to 90% by weight, based on the weight of component a); and component a-ii) is present in an amount of 10 to 80% by weight, based on the weight of component a).

6. The process of Claim 3 wherein component a-i) is present in an amount of 20 to 90% by weight, based on the weight of component a); and component a-ii) is present in an amount of 10 to 80% by weight, based on the weight of component a).

7. The process of Claim 1 wherein component b-i) is present in an amount of 20 to 90% by weight, based on the weight of component b); and component b-ii) is present in an amount of 10 to 80% by weight, based on the weight of component b).

8. The process of Claim 2 wherein component b-i) is present in an amount of 20 to 90% by weight, based on the weight of component b); and component b-ii) is present in an amount of 10 to 80% by weight, based on the weight of component b).

9. The process of Claim 3 wherein component b-i) is present in an amount of 20 to 90% by weight, based on the weight of component b); and component b-ii) is present in an amount of 10 to 80% by weight, based on the weight of component b).

10. The process of Claim 1 wherein component a-i) is present in an amount of 30 to 80% by weight, based on the weight of component a); component a-ii) is present in an amount of 20 to 70% by weight, based on the weight of component a).

11. The process of Claim 2 wherein component a-i) is present in an amount of 30 to 80% by weight, based on the weight of component a); component a-ii) is present in an amount of 20 to 70% by weight, based on the weight of component a).

12. The process of Claim 3 wherein component a-i) is present in an amount of 30 to 80% by weight, based on the weight of component a); component a-ii) is present in an amount of 20 to 70% by weight, based on the weight of component a).

13. The process of Claim 1 wherein component b-i) is present in an amount of 30 to 80% by weight, based on the weight of component b); component b-ii) is present in an amount of 20 to 70% by weight, based on the weight of component b).

14. The process of Claim 2 wherein component b-i) is present in an amount of 30 to 80% by weight, based on the weight of component b); component b-ii) is present in an amount of 20 to 70% by weight, based on the weight of component b).

15. The process of Claim 3 wherein component b-i) is present in an amount of 30 to 80% by weight, based on the weight of component b); component b-ii) is present in an amount of 20 to 70% by weight, based on the weight of component b).

16. The process of Claim 1 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

17. The process of Claim 2 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

18. The process of Claim 3 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

19. The process of Claim 4 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.

20. The process of Claim 10 wherein the polyether segments of component a-i) have a number average molecular weight of at least 6000 and the polyether segments of component a-ii) have a number average molecular weight of 3000 to 12,000.